

CLAIM AMENDMENTS

1 1. (Currently amended) A system, comprising:

2 a first communication node of a plurality of communication nodes connected with
3 processorless central equipment, wherein the first communication node sends one or
4 more first portions of node-output information to the processorless central equipment,
5 and wherein the first communication node is not limited to a telephone; and

6 wherein one or more additional communication nodes of the plurality of
7 communication nodes send one or more additional portions of node-output information
8 to the processorless central equipment; and

9 wherein the first communication node receives from the processorless central
10 equipment a portion of central-output information, wherein the portion of central-output
11 information comprises the one or more first portions of node-output information and the
12 one or more additional portions of node-output information.

1 2. (Original) The system of claim 1, wherein the first communication node
2 sends the one or more first portions of node-output information to the processorless
3 central equipment in a communication frame;

4 wherein the first communication node receives from the processorless central
5 equipment the portion of central-output information in the communication frame.

1 3. (Previously presented) The system of claim 1, wherein the first
2 communication node sends the one or more first portions of node-output information to
3 the processorless central equipment no later than an interval before a start of a
4 communication frame in which the first communication node receives from the
5 processorless central equipment the portion of central output information, and wherein a
6 time duration of the interval is substantially small relative to a time duration of the
7 communication frame.

1 4. (Currently amended) The system of claim 3 in combination with a second
2 communication node of the one or more additional communication nodes, wherein the
3 second communication node sends one or more of the one or more additional portions
4 of node output information to the processorless central equipment no later than the
5 interval before a start of a communication frame in which the second communication
6 node receives from the processorless central equipment the portion of central output
7 information, and wherein the communication frame in which the first communication
8 node receives from the processorless central equipment the portion of central output
9 information and the communication frame in which the second communication node
10 receives from the processorless central equipment the portion of central output
11 information comprise ~~substantially~~ the same time duration.

1 5. (Previously presented) The system of claim 1, wherein the first
2 communication node sends one of the one or more first portions of node-output
3 information to the processorless central equipment within an interval before a time slot
4 of a communication frame of the portion of central-output information, and wherein a
5 time duration of the interval is substantially small relative to a time duration of the
6 communication frame;

7 wherein the first communication node receives from the processorless central
8 equipment the one of the one or more first portions of node-output information in the
9 time slot of the communication frame of the portion of central-output information.

1 6. (Original) The system of claim 5, wherein the time slot comprises a pre-
2 assigned time slot of a set of time slots that comprises the communication frame of the
3 portion of central output information;

4 wherein the first communication node sends one of the one or more first portions
5 of node-output information to the processorless central equipment within the interval
6 before the pre-assigned time slot of the set of time slots that comprises the
7 communication frame of the portion of central-output information;

8 wherein the first communication node receives from the processorless central
9 equipment the one of the one or more first portions of node-output information in the pre
10 assigned time slot of the set of time slots that comprises the communication frame of
11 the portion of central-output information.

1 7. (Original) The system of claim 6 in combination with the processorless
2 central equipment, wherein the processorless central equipment gates the one of the
3 one or more first portions of node-output information with a clock to obtain the one of
4 the one or more first portions of node-output information in the pre assigned time slot of
5 the set of time slots that comprises the communication frame of the portion of central-
6 output information.

1 8. (Previously presented) The system of claim 5, wherein the time duration of
2 the interval is substantially equal to a maximal expected signal-propagation delay
3 between the processorless central equipment and the plurality of communication nodes
4 over a respective plurality of operable passages.

1 9. (Original) The system of claim 5, wherein the time duration of the interval
2 is less than five percent of the time duration of the communication frame.

1 10. (Previously presented) The system of claim 5, wherein the interval
2 comprises a first interval, wherein the first communication node receives from the
3 processorless central equipment the portion of central-output information in the time slot
4 of the communication frame within a second interval, and wherein a time duration of the
5 second interval is substantially small relative to a time duration of the communication
6 frame.

1 11. (Original) The system of claim 5, wherein the one of the one or more first
2 portions of node-output information comprises a first one of the one or more first
3 portions of node-output information, wherein the time slot of the communication frame of
4 the portion of central output information comprises a first time slot of the communication
5 frame of the portion of central-output information;

6 wherein the first communication node sends a second one of the one or more
7 first portions of node-output information to the processorless central equipment within
8 the interval before a second time slot of the communication frame of the portion of
9 central-output information;

10 wherein the first communication node receives from the processorless central
11 equipment the second one of the one or more first portions of node-output information in
12 the second time slot of the portion of central-output information.

1 12. (Original) The system of claim 1, wherein the first communication node
2 sends one of the one or more first portions of node-output information to the
3 processorless central equipment;

4 wherein the first communication node receives from the processorless central
5 equipment the one of the one or more first portions of node-output information in a time
6 slot of a communication frame of the portion of central-output information;

7 wherein the first communication node compares one or more values of the one of
8 the one or more first portions of node-output information with one or more values from
9 the time slot of the communication frame of the portion of central-output information to
10 check correctness of operation of one or more portions of the system.

1 13. (Original) The system of claim 1, wherein the first communication node
2 processes any one or more of:

3 the one or more first portions of node-output information; and
4 the one or more additional portions of node-output information
5 from the portion of central-output information.

1 14. (Original) The system of claim 1 in combination with a second
2 communication node of the one or more additional communication nodes, wherein the
3 second communication node sends one or more of the one or more additional portions
4 of node-output information to the processorless central equipment, wherein the second
5 communication node receives from the processorless central equipment the portion of
6 central-output information.

1 15. (Original) The system of claim 1, further comprising a fiberoptic passage
2 of one or more fiberoptic passages that serve to connect the first communication node
3 with the processorless central equipment, wherein the first communication node sends
4 the one or more first portions of node-output information to the processorless central
5 equipment over the fiberoptic passage.

1 16. (Original) The system of claim 1, further comprising a fiberoptic passage
2 of one or more fiberoptic passages that serve to connect the first communication node
3 with the processorless central equipment, wherein the first communication node
4 receives from the processorless central equipment the portion of central-output
5 information over the fiberoptic passage.

1 17. (Original) The system of claim 1, further comprising a copper passage of
2 one or more copper passages that serve to connect the first communication node with
3 the processorless central equipment, wherein the first communication node sends the
4 one or more first portions of node-output information to the processorless central
5 equipment over the copper passage.

1 18. (Original) The system of claim 1, further comprising a copper passage of
2 one or more copper passages that serve to connect the first communication node with
3 the processorless central equipment, wherein the first communication node receives
4 from the processorless central equipment the portion of central-output information over
5 the copper passage.

1 19. (Previously presented) The system of claim 1 in combination with the
2 processorless central equipment, wherein the processorless central equipment receives
3 the one or more first portions of node-output information and the one or more additional
4 portions of node-output information no earlier than an interval before a start of a
5 communication frame in which the processorless central equipment sends the portion of
6 central-output information to the plurality of communication nodes, and wherein a time
7 duration of the interval is substantially small relative to a time duration of the
8 communication frame.

1 20. (Previously presented) The system of claim 1 in combination with the
2 processorless central equipment, wherein the processorless central equipment receives
3 one of the one or more first portions of node-output information within an interval before
4 a time slot of a communication frame of the portion of central-output information, and
5 wherein a time duration of the interval is substantially small relative to a time duration of
6 the communication frame;

7 wherein the processorless central equipment sends the one of the one or more
8 first portions of node-output information to the first communication node in the time slot
9 of the communication frame of the portion of central-output information.

1 21. (Original) The system of claim 1 in combination with the processorless
2 central equipment, wherein the processorless central equipment within a
3 communication frame employs the one or more first portions of node-output information
4 and the one or more additional portions of node-output information to produce the
5 portion of central output information and sends the portion of central-output information
6 to the plurality of communication nodes.

1 22. (Original) The system of claim 1 in combination with the processorless
2 central equipment and the one or more additional communication nodes, wherein the
3 first communication node, the processorless central equipment, and the one or more
4 additional communication nodes comprise a time division multiplexing architecture.

1 23. (Previously presented) The system of claim 1 in combination with the
2 processorless central equipment and a second communication node of the one or more
3 additional communication nodes;

4 wherein the first communication node sends one of the one or more first portions
5 of node-output information to the processorless central equipment within an interval
6 before a first pre-assigned time slot of a first set of time slots that comprises a first
7 communication frame in which the first communication node receives from the
8 processorless central equipment the portion of central output information and within the
9 interval before the first pre assigned time slot of a second set of time slots that
10 comprises a second communication frame in which the second communication node
11 receives from the processorless central equipment the portion of central output
12 information, and wherein the first and second communication frames comprise an
13 approximately same time duration, wherein a time duration of the interval is
14 substantially small relative to the approximately same time duration of the first and
15 second communication frames;

wherein the second communication node sends one of the one or more additional portions of node-output information to the processorless central equipment within the interval before a second pre-assigned time slot of the first set of time slots that comprises the first communication frame in which the first communication node receives from the processorless central equipment the portion of central output information and within the interval before the second pre assigned time slot of the second set of time slots that comprises the second communication frame in which the second communication node receives from the processorless central equipment the portion of central output information;

wherein the processorless central equipment gates the one of the one or more first portions of node-output information with a clock to obtain the one of the one or more first portions of node output information in the first pre-assigned time slot of the first set of time slots and in the first pre-assigned time slot of the second set of time slots;

wherein the processorless central equipment gates the one of the one or more additional portions of node-output information with the clock to obtain the one of the one or more additional portions of node-output information in the second pre-assigned time slot of the first set of time slots and in the second pre-assigned time slot of the second set of time slots;

wherein the first communication node receives the one of the one or more first portions of node-output information in the first pre-assigned time slot of the first set of time slots and the one of the one or more additional portions of node-output information in the second pre-assigned time slot of the first set of time slots;

39 wherein the second communication node receives the one of the one or more
40 first portions of node-output information in the first pre-assigned time slot of the second
41 set of time slots and the one of the one or more additional portions of node-output
42 information in the second pre-assigned time slot of the second set of time slots.

1 24. (Currently amended) The system of claim 1, wherein the first
2 communication node sends one of the one or more first portions of node-output
3 information to the processorless central equipment in at least a majority substantial
4 ~~number~~ of time slots of a first set of time slots that corresponds to at least a majority
5 ~~substantial-number~~ of time slots of a second set of time slots of the portion of central
6 output information;

7 wherein the first communication node identifies one or more time slots of the
8 second set of time slots that are assigned to the first communication node through
9 identification of the one of the one or more first portions of node-output information in
10 each of the one or more time slots, that are assigned to the first communication node, of
11 the second set of time slots of the portion of central output information.

1 25. (Currently amended) The system of claim 24, wherein the first
2 communication node sends the one of the one or more first portions of node-output
3 information to the processorless central equipment in one or more time slots of the first
4 set of time slots simultaneously ~~coincident~~ with receipt by the first communication node
5 of one or more time slots of the second set of time slots of the portion of central output
6 information.

1 26. (Previously presented) The system of claim 1 in combination with the
2 processorless central equipment, wherein the first communication node sends one of
3 the one or more first portions of node-output information to the processorless central
4 equipment in a time slot, not assigned to the first communication node, the time slot
5 being of a first set of time slots that corresponds to a time slot, not assigned to the first
6 communication node, of a second set of time slots of the portion of central output
7 information;

8 wherein the processorless central equipment withholds the one of the one or
9 more first portions of node-output information from the time slot, not assigned to the first
10 communication node, of the second set of time slots of the portion of central output
11 information through clock gating of the one or more first portions of node-output
12 information in the time slot, not assigned to the first communication node, of the first set
13 of time slots.

1 27. (Original) The system of claim 1 in combination with the processorless
2 central equipment, wherein the processorless central equipment employs one of the
3 one or more first portions of node-output information, a clock, and a plurality of flip-flops
4 to determine a zero or more amount of delay to assert for relative synchronization
5 between a stable part of the one of the one or more first portions of node-output
6 information and a clock edge that is employed to produce the portion of central-output
7 information.

1 28. (Previously presented) The system of claim 1 in combination with the
2 processorless central equipment, wherein the processorless central equipment
3 comprises first processorless-central equipment, further comprising a second
4 processorless-central equipment that is connected with the plurality of communication
5 nodes;

6 wherein the portion of central-output information comprises a portion of first
7 central-output information;

8 wherein the first communication node sends the one or more first portions of
9 node-output information to the first processorless-central equipment and to the second
10 processorless-central equipment, wherein the one or more additional communication
11 nodes send the one or more additional portions of node-output information to the first
12 processorless-central equipment and to the second processorless-central equipment;

13 wherein the first communication node receives the portion of first central-output
14 information from the first processorless-central equipment.

1 29. (Original) The system of claim 28, wherein the first communication node
2 receives the portion of first central-output information from the first processorless-central
3 equipment and a portion of second central-output information from the second
4 processorless-central equipment, wherein the portion of second central-output
5 information comprises one or more of:

6 the one or more first portions of node-output information; and

7 the one or more additional portions of node-output information.

1 30. (Original) The system of claim 29, wherein the first communication node
2 processes information generated during operation of the first communication node to
3 select a first subportion of the portion of first central-output information for employment
4 by the first communication node and a second subportion of the portion of the second
5 central-output information for employment by the first communication node.

1 31. (Original) The system of claim 28, wherein the first communication node
2 sends one of the one or more first portions of node-output information to the first
3 processorless-central equipment in a time slot that corresponds to a time slot of a first
4 set of time slots that comprises a first communication frame in which the first
5 communication node receives from the first processorless-central equipment the portion
6 of first central-output information;

7 wherein the first communication node sends the one of the one or more first
8 portions of node-output information to the second processorless-central equipment in a
9 time slot that corresponds to a time slot of a second set of time slots that comprises a
10 second communication frame in which the first communication node receives from the
11 second processorless-central equipment a portion of second central-output information;

12 wherein the first communication node receives a portion of information from the
13 first processorless-central equipment in the time slot of the first set of time slots;

14 wherein the first communication node receives a portion of information from the
15 second processorless-central equipment in the time slot of the second set of time slots;

16 wherein the first communication node compares one or more values of the one of
17 the one or more first portions of node-output information with one or more values of the
18 portion of information from the first processorless-central equipment in the time slot of
19 the first set of time slots and with one or more values of the portion of information from
20 the second processorless-central equipment in the time slot of the second set of time
21 slots to select either the portion of first central-output information or the portion of
22 second central-output information for employment by the first communication node in
23 conjunction with the time slot of the first set of time slots and in conjunction with the time
24 slot of the second set of time slots.

1 32. (Original) The system of claim 1 in combination with a maintenance node
2 of one or more maintenance nodes of the one or more additional communication nodes,
3 wherein the maintenance node receives from the processorless central equipment the
4 portion of central-output information, wherein the maintenance node monitors the one or
5 more first portions of node-output information and the one or more additional portions of
6 node-output information from the portion of central-output information to check
7 correctness of operation of one or more portions of the system, wherein the
8 maintenance node sends one or more report portions, of the one or more additional
9 portions of node-output information, to the processorless central equipment.

1 33. (Original) The system of claim 1 in combination with the plurality of
2 communication nodes, wherein each of the plurality of communication nodes sends a
3 corresponding one or more portions of node-output information to the processorless
4 central equipment, wherein each of the plurality of communication nodes receives from
5 the processorless central equipment the portion of central-output information, wherein
6 the portion of central-output information comprises all the portions of node-output
7 information.

1 34. (Currently amended) A method, comprising the steps of:
2 sending one or more first portions of node-output information to processorless
3 central equipment from a first communication node of a plurality of communication
4 nodes connected with the processorless central equipment, wherein one or more
5 additional communication nodes of the plurality of communication nodes send one or
6 more additional portions of node-output information to the processorless central
7 equipment, and wherein the first communication node is not limited to a telephone; and
8 receiving at the first communication node a portion of central-output information
9 from the processorless central equipment, wherein the portion of central-output
10 information comprises the one or more first portions of node-output information and the
11 one or more additional portions of node-output information.

1 35. (Previously presented) The method of claim 34, wherein the step of
2 sending the one or more first portions of node-output information to the processorless
3 central equipment from the first communication node of the plurality of communication
4 nodes connected with the processorless central equipment and the step of receiving at
5 the first communication node the portion of central-output information from the
6 processorless central equipment comprise the steps of:

7 selecting a time duration of an interval to be approximately equal to a maximal
8 expected signal-propagation delay between the processorless central equipment and
9 the plurality of communication nodes over a respective plurality of operable passages;

10 sending one of the one or more first portions of node-output information to the
11 processorless central equipment from the first communication node within the interval
12 before a time slot of a communication frame of the portion of central-output information,
13 wherein a time duration of the interval is substantially small relative to a time duration of
14 the communication frame; and

15 receiving at the first communication node the one of the one or more first portions
16 of node-output information in the time slot of the communication frame of the portion of
17 central-output information from the processorless central equipment.

1 36. (Original) The method of claim 34, wherein the step of sending the one or
2 more first portions of node-output information to the processorless central equipment
3 from the first communication node of the plurality of communication nodes connected
4 with the processorless central equipment and the step of receiving at the first
5 communication node the portion of central-output information from the processorless
6 central equipment comprise the steps of:

7 sending a corresponding one or more portions of node-output information to the
8 processorless central equipment from each of the plurality of communication nodes; and

9 receiving at each of the plurality of communication nodes the portion of central-
10 output information from the processorless central equipment, wherein the portion of
11 central-output information comprises all the portions of node-output information.

1 37. (Currently amended) An article, comprising:

2 a computer-readable signal-bearing medium; and

3 means in the medium for sending one or more first portions of node-output
4 information to processorless central equipment from a first communication node of a
5 plurality of communication nodes connected with the processorless central equipment,
6 wherein one or more additional communication nodes of the plurality of communication
7 nodes send one or more additional portions of node-output information to the
8 processorless central equipment, and wherein the first communication node is not
9 limited to a telephone; and

means in the medium for receiving at the first communication node a portion of central-output information from the processorless central equipment, wherein the portion of central-output information comprises the one or more first portions of node-output information and the one or more additional portions of node-output information.

38. (Original) The article of claim 37, wherein the means in the medium for sending the one or more first portions of node-output information to the processorless central equipment from the first communication node and the means in the medium for receiving at the first communication node the portion of central-output information from the processorless central equipment comprise:

means in the medium for sending one of the one or more first portions of node-output information to the processorless central equipment from the first communication node;

means in the medium for receiving at the first communication node the one of the one or more first portions of node-output information in a time slot of a communication frame of the portion of central-output information; and

means in the medium for comparing at the first communication node one or more values of the one of the one or more first portions of node-output information with one or more values from the time slot of the communication frame of the portion of central-output information to check correctness of operation of one or more portions of the system.

1 39. (Original) The article of claim 37, wherein the means in the medium for
2 sending the one or more first portions of node-output information to the processorless
3 central equipment from the first communication node and the means in the medium for
4 receiving at the first communication node the portion of central-output information from
5 the processorless central equipment comprise:

6 means in the medium for sending a corresponding one or more portions of node-
7 output information to the processorless central equipment from each of the plurality of
8 communication nodes; and

9 means in the medium for receiving at each of the plurality of communication
10 nodes the portion of central-output information from the processorless central
11 equipment, wherein the portion of central-output information comprises all the portions
12 of node-output information.